DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

PERMITTING AND COMPLIANCE DIVISION
Water Protection Bureau

Name of Project: Montana Pollutant Discharge Elimination System (MPDES) permit MT0022578 renewal for the US Bureau of Reclamation (USBOR) Hungry Horse (HH) Dam and Power Plant wastewater discharges.

Type of Project: USBOR owns and operates the HH Dam and Power Plant, located southeast of Hungry Horse, Montana, on the South Fork Flathead River. The permittee has requested coverage for four outfalls (Outfall 001 is for the previously permitted wastewater treatment plant discharge and three new outfalls 002, 330, and 004A through D for the station unwatering sump, station dewatering sump and generator non-contact cooling water discharges, respectively.

New limits are proposed for Outfall 001 for *E. coli* bacteria and Total Residual Chlorine. Increased sampling frequency will monitor effluent compliance with 7-day and 30-day limitations. While there are no new limits proposed for Outfalls 002, 003, and 004A through D, self-monitoring requirements are proposed.

Location of Project: Township 30N, Range 19W, Section 27, Hungry Horse, Flathead County, MT

Agency Action and Applicable Regulations: The proposed action is to renew the MPDES permit for another five-year cycle.

ARM Title 17, Chapter 30, Sub-chapter 2 - Water Quality Permit Application and Annual Fees.
ARM Title 17, Chapter 30, Sub-chapter 5 - Mixing Zones in Surface and Ground Water.
ARM Title 17, Chapter 30, Sub-chapter 6 - Surface Water Quality Standards.
ARM Title 17, Chapter 30, Sub-chapter 7 - Nondegradation of Water Quality.
ARM Title 17, Chapter 30, Sub-chapters 12 and 13 – MPDES Standards.
Montana Water Quality Act, MCA 75-5-101, *et seq.*

Summary of Issues: Previous and new permit limitations are in effect for the proposed permit cycle. The mixing zone is redefined.

Benefits and Purpose of Action: The permit will ensure compliance with the Montana Water Quality Act and protection of the beneficial uses of the South Fork Flathead River. Limits for *E. coli* bacteria will provide further protection for primary contact recreation.

Affected Environment & Impacts of the Proposed Project:

Y = Impacts may occur (explain under Potential Impacts). *Include frequency, duration (long or short term), magnitude, and context for any significant impacts identified. Reference other permit analyses when appropriate (ex: statement of basis). Address significant impacts related to substantive issues and concerns. Identify reasonable feasible mitigation measures (before and after) where significant impacts cannot be avoided and note any irreversible or irretrievable impacts. Include background information on affected environment if necessary to discussion.*

N = Not present or No Impact will likely occur. *Use negative declarations where appropriate (wetlands, T&E, Cultural Resources).*

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	**[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES**
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[N]
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[Y] The permit contains new and continuing effluent limits that will continue to assure discharge quality and protect receiving water beneficial uses. Previously unpermitted discharges are now covered under this permit with monitoring requirements. The U.S. Congress Pacific Northwest Electric Power Planning and Conservation Act of 1980 was designed to balance hydropower development with other natural resource needs in the Columbia River Basin system. Reservoir operation guidelines were developed to balance fisheries concerns in the headwaters of the basin with anadromous species recovery actions in the lower Columbia River system (Biological Rule Curves, BRCs). BRCs were then integrated with power production and flood control needs to reduce the impact of basin-wide fisheries recovery actions. The resultant Integrated Rule Curves (IRCs) were simultaneously developed in the Columbia Basin System Operation Review (Bonneville Power Administration), the Northwest Power Planning Council Phase IV amendment process, and recovery actions associated with endangered Columbia Basin fish species. The IRCs are set annually as dictated by a four-year critical drought plan and the overall hydro-system coordination scheduling. IRCs establish the acceptable temperature range and flow regimen of the river downstream of the dam. The dam must then operate in accordance with the IRC to maintain optimal flows and temperatures in downstream waters. As such, the naturally occurring water temperature in the South Fork Flathead River is a manipulated condition, established to balance the needs and beneficial uses of a variety of entities. The renewal application describes that the dam operators balance the temperature input from the nccw discharges with the use of the selective withdrawal structure to meet IRC goals for downstream temperature. Temperature control by selective withdrawal and modified dam operations (NPCC Mainstem Amendment Operations) were established, in part, to protect fisheries. The dam operations will serve as the regulatory means to protect beneficial uses in the South Fork Flathead River.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	**[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES**
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N]
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[N] A review of the Natural Heritage database shows three nonvascular plant species of concern: 1. *Bryum calobryoides* (rank SH); 2. *Amblyodon dealbatus* (rank SH); and 3. *Aloina brevirostris* (rank S1). There are seven identified vascular plants: 1. maidenhair spleenwort (rank SH) 2. deer Indian paintbrush (rank SH) 3. ,Latah tule pea (S1); 4. Spalding's campion (rank S1); 5. short-styled thistle (rank S1); and 6. upward-lobed moonwort (rank S1) and sensitive by the USFS and 7. small yellow lady's slipper orchid (rank S-3, sensitive by the USFS and special status by BLM. SH is historical, may be rediscovered. S1 is At high risk because of extremely limited and/or rapidly declining population numbers, range and/or habitat, making it highly vulnerable to global extinction or extirpation in the state. S-3" is Potentially at risk because of limited and/or declining numbers, range, and/or habitat, even though it may be abundant in some areas. The proposed monitoring and limits will help to protect any listed species.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	**[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES**
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[Y] A review of the Natural Heritage database shows one invertebrate animal the smoky taildropper (rank S1). Eight vertebrate animals are listed : 1. Grizzly Bear (rank S2, threatened by USFWS and USFS, special status by BLM; 2. Westslope cutthroat trout (rank S2, and sensitive by USFS and BLM); 3. bull trout (rank S2, threatened by USFWS and USFS, special status by BLM); 4. common loon (breeding) (rank S-2,sensitive by USFS and BLM); 5. fisher (rank S3, sensitive by USFS and BLM); 6. wolverine (rank S-3, sensitive by USFS and BLM); 7. Canada lynx (rank S3, threatened by USFWS and USFS, special status by BLM; 8. gray wolf (rank S3, endangered by USFWS and USFS, special status by BLM); S-2 is At risk because of very limited and /or rapidly declining numbers, range, and/or habitat making it vulnerable to global extinction or extirpation in the state. S-3 is Potentially at risk because of limited and/or declining numbers, range, and/or habitat, even though it may be abundant in some areas. The proposed monitoring and limits will help to protect any listed species.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[Y] See answer to #5, above. The proposed monitoring and limits will help to protect any listed species.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N]
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N]
9. LAND USE: (waste disposal, agricultural lands [grazing, cropland, forest lands, prime farmland], recreational lands [waterways, parks, playgrounds, open space, federal lands), access, commercial and industrial facilities [production & activity, growth or decline], growth, land-use change, development activity)	[N]
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N]

IMPACTS ON THE HUMAN ENVIRONMENT	
RESOURCE	**[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES**
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] Effluent limits for *E. coli* bacteria will increase protection of public health for both primary and secondary recreation
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N]
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N]
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N]
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N]
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N]
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N]
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]
22(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N]
22(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.	[N]
22(c). PRIVATE PROPERTY IMPACTS: If the answer to 21(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	[N]

23. **Description of and Impacts of other Alternatives Considered:** None

24. **Summary of Magnitude and Significance of Potential Impact**: None

25. **Cumulative Effects:** None

26. **Preferred Action Alternative and Rationale:** The preferred action is to renew the MPDES permit because the MPDES program provides the regulatory mechanism for protecting water quality by enforcing the terms of the MPDES permit.

    Recommendation for Further Environmental Analysis:

    [ ] Environmental Impact Statement (EIS) [ ] More Detailed EA [X] No Further Analysis

    Rationale for Recommendation: An EIS is not required under the Montana Environmental Policy Act because the project lacks significant adverse effects to the human and/or physical environments.

27. **Public Involvement:** A 30-day public notification/comment period was held.

28. **Persons and agencies consulted in the preparation of this analysis:** None

EA Checklist Prepared By: MK Valett, July 28, 2008

Approved by:

Jenny Chambers, Chief
Water Protection Bureau

Date